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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/574,411	05/18/2000	Yutaka Yokoyama	13613	7920

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GARDEN CITY, NY 11530

EXAMINER

REKSTAD, ERICK J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 10/06/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/574,411

Applicant(s)

YOKOYAMA ET AL.

Examiner

Erick Rekstad

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 15-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

[claims 15, 17 and 18]

Claim 15 recites the limitation "mean value" in 3rd line. There is insufficient antecedent basis for this limitation in the claim. Claim 12 makes no mention of a "mean value".

[claim 16]

Claim 16 is dependent on claim 17 but comes before claim 17. It is assumed that the claim was meant to claim dependence on one of the previous claims (12-15). Appropriate changes are required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,091,460 to Hatano et al.

[claims 1, 2, 3, 12, and 14]

Hatano describes a video coding apparatus comprising a coding/decoding circuitry (Fig. 20), and a decision circuitry (46 in Fig. 21). The decision circuitry determines a magnitude of motion of input frames relative to reference frames, determining an interval between successive frames of said predictive coded picture according to the magnitude of motion, and reordering said input frames according to the determined interval. The decision circuitry is configured to increment said interval when said magnitude of motion is smaller than a first threshold and decrement said interval when said magnitude of motion is greater than a second threshold. (Col 16 Lines 33-67, Fig. 20-22c)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatano in view of US Patent 6,473,459 to Sugano et al.

[claims 4-6, 10, 11 and 13]

Hatano describes a video coding apparatus comprising of a first memory (21) for storing a plurality of input frames, a second memory (24a-b) for storing reference frames, motion vector detection circuitry (17), coding/decoding circuitry (Fig. 20) and decision circuitry (40)(Col 34 Lines 43-67, Col 35, Fig. 8,20-21). Hatano does not teach

the use of a mean value calculation circuitry. Sugano teaches the use of a mean value calculation circuitry (14 in Fig. 2) to determine differences between frames (Col 7 Lines 31-43, Fig. 7). It would be obvious to one skilled in the art at the time of the invention to modify Hatano's system with Sugano's mean motion vector in order to determine characteristics in a digital video signal.

[claims 8]

The decision circuitry is configured to determine a time-varying rate (S_a) of said mean value and increment said interval when the time-varying rate is smaller than a predetermined rate (Col 16 Lines 50-62).

[claims 7 and 9]

Hatano teaches the use of $f(i,j)$ to represent the image signal, where i represents the pixel number in the horizontal direction and j represents the pixel number in the vertical direction. Hatano also teaches that $g(l,j)$ represents a past picture (Col 35 Lines 8-14). Hatano increments through all the i and j components to determine the difference between two images (Col 35 Equation F21). Hatano does not specifically teach obtaining the horizontal and vertical components separately and then using the components to determine change in the digital video signal. Sugano teaches the operation of obtaining the horizontal and vertical components separately and then using the components to determine change in the video signal (Col 5 Lines 27-35, Fig. 7). It would be obvious to one skilled in the art at the time of the invention to modify Hatano's equation to use Sugano's method to obtain the difference only in the horizontal direction and only in the vertical direction.


Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 703-305-5543. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Erick Rekstad
Examiner
AU 2613
(703) 305-5543
erick.rekstad@uspto.gov


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600